

in India and that *R. haemaphysaloides* may play some part in the transmission of the disease.

The author is deeply grateful to Dr. A. P. Kapur for his instruction and help in this piece of work.

ENTOMOLOGICAL ASSISTANT,
ZOOLOGICAL SURVEY OF INDIA,
CALCUTTA,
October 27, 1955.

G. MATHAI

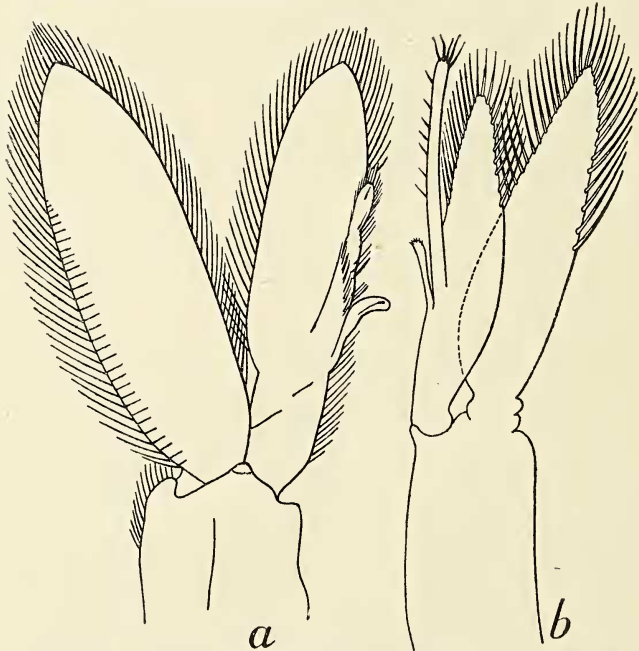
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25. APPENDIX MASCULINA OF *PALAEON LAMARREI*
H. MILNE-EDWARDS¹

(With a text-figure)

In all the known species of *Palaemon* Fabr. (= *Macrobrachium* Bate) the males are distinguished from females, in addition to other



Second pleopods in male of: (a) *Palaemon carcinus* (after Holthius), $\times 4$; (b) *Palaemon lamarrei*, $\times 20$.

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characters, by the presence of an appendix masculina on the endopod of the second pleopod.

The appendix masculina presents a more or less uniform structure in all the Indian species of *Palaemon* examined by me except *Palaemon lamarrei* H. Milne-Edwards. It consists of an elongate, thin appendage arising from the angle formed by the junction of the appendix interna with the inner border of the endopod. In most of the species this structure, though longer than the appendix interna, fails to reach the apex of endopod by a considerable margin, and it is copiously provided with stiff hairs (fig. a).

The appendix masculina of *Palaemon lamarrei* (fig. b) differs from that of other species in the following features :

1. In the fully developed stage it is a long structure, in the usual position, extending as far as the apex of the endopod or even slightly exceeding beyond it.

2. Its apex is slightly inflated, and is provided with about half a dozen stiff hairs. In addition its inner edge has five or six scattered erect marginal hairs in the upper two-thirds of its length.

The only other recorded instance where the appendix masculina extends almost up to the end of apex of endopod is the figure of the second pleopod of a 25 mm. long male identified by Kubo¹ as *Palaemon boninensis* Stimpson. In this case, the structure appears to be more hairy than in *P. lamarrei*.

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KRISHNA KANT TIWARI

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26. REPRODUCTION OF THE NOTOSTRACA²

The Phyllopod Crustacean (*Triops orientalis*) is extremely common in the rainwater pools on the Tableland of Panchgani, 4,378 ft., (Satara District, Bombay), but nothing is known regarding its habits or breeding. It may therefore be of interest to draw attention to a note on the 'Reproduction and Cytology of the Notostraca' by Alan R. Longhurst, Bedford College, University of London, on pages 671-680 (Volume 125) of the *Proceedings of the Zoological Society of London* for November 1955.

Both bisexual and hermaphrodite reproduction occur. The copulation of *Triops cancriformis* has been described by other authors and is said to be 'a rapid process, in which the male approaches the female laterally, and arches its body so that it grips that of the female in such a way that the ventral surfaces of the posterior regions of the thorax are opposed; for a few seconds the male moves convulsively, and then breaks away.

'Isolated hermaphrodite females readily lay viable eggs', but 'in bisexual populations copulation is necessary before the females will

¹ Kubo, I., *J. Imp. Fish. Inst. Tokyo*, 34, No. 1, p. 17, Fig. 9 (1940).

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